

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. F. ROBERTS AND SAMUEL SANDS—EDITED BY E. F. ROBERTS.

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TUESDAY, BALTIMORE: NOVEMBER 7, 1837.

REMOVAL.

The office of the "Farmer and Gardener" is removed to the North West corner of Baltimore and North-sts., over the Patriot office, opposite the Franklin Bank, and near the Post-office.

ECONOMY IN FEEDING.

There is, perhaps, no department in the business of Agriculture so little attended to in this country as that of economy in the feeding of stock, and none which requires more attention.—It has been demonstrated time after time that the mere bruising of oats, or corn, or the cutting of hay, adds fully one-third to its value as food: that is, that one-third less in quantity of either will answer. That this is the fact we have no doubt, and have long been surprised that so few persons, owners of stock, adopted this mode of feeding.—No one who has watched with a discriminating eye the effects of feeding animals with whole grain but must have observed the fact that a large portion comes from them precisely in the same condition it was received by them into their stomachs. The reason of this is obvious: their stomachs have become so enfeebled, by being long used to unbruised grain, corn, or oats, as to be unable to digest the regular portions of these substances daily given them. This fact alone should bring about a reformation, as it is calculated to convince any one capable of drawing just deductions from well established principles, that all food which is voided in an undigested state, so far from having done any good, must have been the cause of much positive harm, as all bodies which lie in the stomach in that condition, are so many sources of irritation, derangement, and disease. But there is another view, which we do not recollect to have seen enforced,—it is this: that by crushing or bruising all grain food given to cattle, the manure will be the more valuable. How of-

ten do we see a piece of ground which has been manured from the horse stable so covered with oats as to induce the belief in a stranger that oats had absolutely been sown, when in fact they had sprung from the undigested grains which had passed through the horses. The trouble which such foul manure imposes upon the husbandman we need not mention, as sad experience has made every one intimate with it. If then one-third in quantity of grain can be saved; if that fed is more nutritious, if the manure made from it is cleaner and better, why should farmers and planters hesitate a moment? Why do they not at once abandon a practice so replete with evil? We leave the solution of these questions to those interested, and shall proceed to another branch of our present business.

What is the best food for horses in winter, economy considered?

Before we reply to this question we will premise, that we may set it down as a safe calculation, that the average yield of oats and corn throughout the United States is not more than 25 bushels to the acre. There are, to be sure, many districts of country in which there are numerous instances of quantities far above this produced upon an acre of ground; but then when we speak of the average for the whole country, we consider it would be unsafe to go beyond the quantity we have named. In 25 bushels of grain there are 200 gallons, and as the usual quantity given to a horse at a meal is one gallon, and he is fed three times a day, 25 bushels, or the product of one acre, will be 66 $\frac{2}{3}$ days. Now let us see how stands the account with carrots. An acre of carrots planted on sandy loam well manured, say 20 double cart loads of short manure, if properly tended, that is thinned to the distance of 4 inches in the rows, and weeded and worked three times, will yield 300 bushels, and as there are 1200 pecks in that quantity, and 3 pecks will sustain a horse a day, so will 1200 pecks sustain him 400 days, or 4 horses 100 days, or 5 horses 80 days.—The advantage of such product for winter feed we think so obvious as not to require further illustration. Every farmer knows that there are long periods of time during the winter months when the horses on a farm do but little work, and during those periods the carrots are just as good

for them as either oats or corn, and require but little more trouble in their preparation, for if they be not very large the horses will consume them without cutting, so that all they require is washing, a labor which can be performed in 15 minutes for twenty horses. It is said that they are not as substantial food as either oats or corn: true they are not; but when horses are idle during winter, less substantial food will answer. Good hay and carrots will not only keep them in good heart, but fat, if they be properly attended to, are carefully watered, curried, and warmly kept. Carrots will keep buried in the open air from November till May, during all which period they may be advantageously fed to horses. The benefit which would arise to the farmer from such a course of feeding, will, we are certain, strike the most superficial observer, as it would enable him to sell more of his grain if he had a large surplus; and if the reverse, he would find his profit in the decreased demand upon his grainary. It may, and doubtless will, be said that the culture of the carrot is a troublesome one; but on the other hand we affirm that they are no more so than corn, if the latter be well tended: they require thinning, so do corn, they require to be kept clean, so do corn, and we affirm without the fear of contradiction, that they do not require to be oftener worked, and as we have demonstrated that they will go nearly six times as far, we recommend their culture to the consideration of our readers, and in so doing, discharge not only a duty, but one which we feel assured will be well received, because well intended.

Mammoth Oxen—There are now exhibiting on Commercial street, three of the most remarkable oxen ever raised in the country, owned by Messrs. John Barnes and Brecht. The ox Independence, 6 years old, weighs over 3100 lbs. was raised in Geræsee county, by Mr. Chaplin, and fattened by Mr. Barnes, of this city. The ox Golden, 8 years old, weighs 2800 lbs., and the ox Pickaway, same age, weighs 2600 lbs., both raised and fattened by Mr. Deckea of Pickaway co. Ohio.

It is the intention of the owners, Messrs. Barnes and Brecht, to exhibit their oxen along the line of the canal, in a few weeks, on their way to New York city. The lovers of fat beef can feast their eyes on these noble animals with pleasure.
—Buffalo Star.

THE CULTURE OF MANGEL WURTZEL OR FIELD BEET.

A few remarks on the culture of this crop, now the season has arrived for commencing it, may not be unacceptable.

THE SOIL

Is best when a clayey loam; but any soil if ploughed deep and well manured will produce good crops, as the principal requisite is depth and fertility.

THE SOWING

Should be done in the early part of May, although it is frequently performed later. Where the ground is very moist it should be sown upon ridges; but in ordinary cases, it succeeds best when planted in drills without ridging. T. and H. Little, of Newbury, Mass., who raised upwards of three tons to one acre, prepared the ground and sowed in the following manner: After one deep ploughing, the ground was furrowed two and a half feet apart, and the manure put into the furrows, and covered with the plough; a roller was then passed on the top of the ridge thus formed, to pulverise the lumps, level the surface, and press the soil and manure together. The seed were then dibbled with the finger over the manure, about 6 or 8 inches apart. John Hare Powel sowed his crop thus:—"The holes for the seed were made by a wheel, containing pegs in its circumference, which penetrated the ground about an inch, leaving intervals of four inches; the rows were made two feet asunder; two capsules [or berries] were dropped in each hole; the wheel of a common barrow was then passed over them, thus compressing the earth, and leaving a slight rut for the retention of moisture.

THE QUANTITY OF SEED

Per acre should be about four pounds; for although this is a large allowance, the expense is small when compared with the insurance of an even crop. Great care should be taken that the seed of the common red and white beet is not mixed with it. Unless the ground be very moist, the seed, before sowing, should be soaked about 48 hours in soft water. After the plants have come up, they should be thinned to about eight inches distance from each other in the rows.

THE AFTER CULTURE,

Consists principally in a free use of the cultivator; and in keeping the land perfectly clear of weeds. Col. Powel ascribes his success in the culture of this crop, to deep and thorough ploughing; to the use of cultivators, which complete the production of fine tilth; to the destruction of weeds on their first appearance, to leaving the smallest space upon which a horse can walk between the rows; and above all, to planting the seed of a proper kind upon a surface which is kept perfectly flat. Gideon B. Smith of Baltimore, in 1832, planted one sixth of an acre, which had been intended for early corn, and had been manured the previous year. The seed were sown in drills two feet asunder, and eight inches apart in the drills, and covered as corn. When the plants were up a weeding hoe was passed over the field, and afterwards a small plough run through it twice, clearing out the weeds with a hoe. This was all the cultivation it had; and

the whole labor, including the original preparation of the ground, did not exceed two full days work for one man. The crop was upwards of 75 bushels, and might have been much larger, as there were many vacant places of 6 or 8 feet in length in the rows, and other places where the roots were injured by being crowded. The soil was a fair medium mould, a mixture of clay, sand, and vegetable matter.

THE PRODUCE PER ACRE,

Under ordinary culture, may be estimated from 600 to 1000 bushels. Where however, the ground is ploughed very deep, well manured, and well cultivated, much larger crops have been obtained, of which a few instances are here given.

Gideon Foster, of Charleston, Middlesex co., Mass. raised 43 tons to the acre.

The premium crop of Tristram and Henry Little, of Newbury, Mass., was 33 tons 10 cwt. and 14 lbs. to an acre, or more than fourteen hundred bushels.

Col. Powel inclosed certificates to the President of the Pennsylvania Agricultural Society, showing that sixteen hundred and thirty-four bushels of mangel wurtzel, weighing 78,448 pounds, were produced upon an acre and fourteen perches; and a part of the same field containing thirteen contiguous rows, produced at the rate of two thousand and fifty-five bushels per acre, weighing 44 tons, 5 cwt. and 27 lbs.

Henry Thompson, of Baltimore, raised in 1833, on less than one eleventh of an acre, 5 tons, 14 cwt. and 3 qrs., or at the rate of about sixty tons to the acre.

In good land, single roots of the mangel wurtzel often weigh nine or ten pounds, and sometimes even fourteen or fifteen pounds each: and J. A. Kenrick, of Newton, Mass. raised in 1833, a single root weighing no less than thirty-six pounds.

USES.

This root is admirably adapted for feeding nearly all domestic animals. It is the best of known food for store swine; and swine fatten upon it, yielding firm pork of good flavor, when fed to them raw, equally well as upon boiled potatoes, by which the fuel and labor of boiling is saved.

Col. Powel says:

"My neat cattle prefer mangel wurtzel to any other root which I have offered to them. I have found its effects in producing large secretions of good milk, very great. * * * Its application as food for sheep is not the least important of its uses. Ewes yearn usually at the season when grass cannot be supplied. The health of themselves and the thrift of their lambs essentially depend upon succulent food being had. I am inclined to think that no small portion of the success which English breeders have met, is to be ascribed to the large stores of roots, which they always have at command."

In autumn, when the quantity of milk from cows often diminishes greatly, it may be restored by cutting the leaves of this plant, and feeding them. In some instances the quantity has been doubled by this means. The leaves soon grow again, and may be cut every fortnight.* Cows fed twice a day in winter, upon 20 pounds of the roots at a time, together with 4 or 5 pounds of hay or chopped straw, will, it is asserted, give as much milk as in summer.

In some instances when fed to cattle and sheep, this root is said to have produced scouring. This may be owing either to the soil adhering to the roots when eaten, or to the sudden commencement of feeding on them exclusively, instead of their being mixed with a proper proportion of dry food, such as hay, meal, or chopped straw.

This crop has several important advantages in its cultivation. It is little affected by changes of the weather; suffers little from drought; thrives in moist soils; is not attacked by any insect; and prepares the ground well for succeeding crops.—The roots may be kept sound and fresh for eight or ten months.

Farmers who value their land, would find it greatly to their interest to direct their attention more to the cultivation of this crop. It has been found that two tons of mangel wurtzel are equal to one of hay for feeding cattle in general. Any one may readily calculate from this, how much greater a number of cattle may be supported by this means, from a given quantity of land, than by the usual mode of feeding them exclusively on grass and hay. Supposing for instance that thirty tons of mangel wurtzel are the average product per acre, then we shall have an amount from one acre alone equal to from ten to fifteen tons of hay. Now if a method should be devised for raising this amount of hay from an acre, it would excite universal attention and inquiry; but this crop, although possessing advantages not less important, is almost entirely neglected.

*It is probable however that this production of new leaves is in a greater or less degree, at the expense of the root, although very large crops have been raised where this course has been pursued.

[From the Southern Agriculturist.]

METHODS OF REVIVING WORN-OUT LANDS.

AUGUSTA, GEORGIA, AUGUST 1837

Mr. Editor,—I have just returned from a ride into the interior of this State, and have seen many methods of culture, which, to me, were novelties. Nothing, however, pleased me more than the growth of cotton in some fields, which I was told had been planted for twenty years. These Georgians have a dash of energy, that has ever hurried them to the front, in the march of improvement. Would you believe it; a field of cotton, that had been exhausted by the workings of twenty years, exhibited the promise of not less than one thousand weight of seed cotton to the acre. How? you will ask. Tell the wherewithal? The wherewithal? Nothing abstruse, Mr. Editor. No metaphysics in it. No jargon of the words alkalis and acids—nitrogen oxygen—carbon and bones? Nothing of the kind: it is only this,—What was taken out of the soil is put back into it. The Georgians, I understand, replenish their exhausted fields in this way. Rye is planted broad cast early in the fall; allowed to grow until pea-season, and then the whole is planted in peas broad-cast: when the peas ripen if the crop be abundant, you may pick them, and after this is done, turn the whole under with the plough. If the rye come to maturity before you are ready to plant peas, you may top the grain; or top it in the milk, if you have time. If the land be very

poor, this plan is usually adopted two successive seasons, and then it will afford an abundant crop of any thing. The appearance of the soil is now changed: it acquires a vegetable mould, not to be exhausted for many years. You may readily conclude what the effect will be upon the soil by turning under, first, a growth of rye, and then a growth of pea-vines. Nothing, to my own knowledge, is more renovating to land than pea-vines. They are friable, if I may be allowed to use the word, and incorporate immediately with the earth, and thus give, from this combination, a direct impulse to plants, without firing them, or obstructing the motion, or spreading of their roots. I am told that the crop of peas will, of itself, pay for the seed used, and the price of labor: so that the improvement of the soil is so much gained.

Writing of replenishing soils, puts me in mind of what a very successful planter, in Edgefield District, is in the habit of doing every year. He plants about one hundred acres of rye, oats, or wheat, in the proper season: gathers them in, and stacks them in the field: when he has laid by his crop, or whenever he can spare time, he gathers the grain in this manner:—He sows pieces of cotton bagging together—spreads it out as a carpet—places the rye, oats, or wheat on the same, and makes the little boys of the plantation ride horses upon it, until all, or nearly all, of the grain is detached from the stubble. He then gathers the seed, and stacks the stubble in every part of the field. Not only his own cattle but his neighbors', are now let in, which trample the soil as they munch and scatter the stubble in every direction. In February, the field is broken up with the plough, and cotton or corn planted. This planter always makes fine crops, and sells many hundred bushels of small grain every year. A better plan of obtaining the grain might be suggested.—The sheaf might be deprived of its grain by beating it on a rail, as is done in some parts of the West, and in Europe. By pursuing this course, this planter, who originally purchased a large tract of land, says, he has cleared very few acres, and has made abundant crops from his old fields, which were thrown out for their sterility. We should take the hint, Mr. Editor, and do likewise. Let us not be running to the West, when, by little industry, we may improve our soils. Every citizen is wanted at home! we shall have need of them shortly.

Yours,

P. S. I had almost forgot to mention how some of the planters of North Carolina replenish their corn-lands. Early in the fall they cover their fields with leaves or trash, and turn them under with the double horse-dagan or the crow-bar; oats is then planted, rather late in the season, with the rake or harrow, broad cast, for a pea-crop, which is abundant. Peas riot in vegetable matter partially decayed. This I have seen; for the most abundant crop I ever gathered, was when I mowed my corn with leaves; the corn was "very sorry," while the peas were vigorous. The reason was this; the leaves did not decompose in time to benefit the corn, while later in the season the peas had the benefit of them. The ploughing of the leaves should be deep, and they should be effectually covered to plant oats or rye with any hope of success; but the peas may be planted at all events, and the same remark could be made of

wheat, since new ground is said by some to yield good wheat crops. When the land is thus replenished, the North Carolinians rarely, if ever plant corn the first year; the plant most generally fires if they do.

GEOLOGICAL SURVEY OF MARYLAND.

The geological survey of this state, now in progress, by Professor Ducatel, we are glad to learn is exciting the interest of the people and gaining favor even among those who first opposed it. Our attention having been called to the subject by a friend, we have examined the reports made by Professor Ducatel to the Legislature, and have sought information from others who are well advised, and it gives us great pleasure to state that the survey is progressing with as much rapidity as the work will admit, and with the happiest results.

Among the positive benefits which the citizens of Maryland have derived from the researches of the Geologist, may be mentioned, the better acquaintance that has been imparted to them of the physical geography of the state, including the general character of the soil in the several counties that have already been visited, its susceptibility to improvements, and the best means of effecting these improvements. They have been made aware of the presence of vast agricultural resources, of which they did not previously know the existence, or whenever known, did not fully appreciate, because of an imperfect knowledge of their true character and real value. The occurrence of immense deposits of shell marl has been indicated in numerous localities where it was not suspected; ample directions have been given for its extraction and its use, and wherever these have been attended to, in now already numerous places, the benefits derived from its application have reached the most sanguine anticipations. In those counties even where the employment of marl dates to many years antecedent to the geological survey, and where its value was in some measure known, a new incentive has been given to its further use, and a means of agricultural improvement which was formerly resorted to by only a few independent farmers, is now becoming, wherever circumstances will allow of it, a common resource to the, hitherto, most careless cultivator. By increasing the produce of the soil, the value of the lands has in proportion been enhanced to such an extent that the mere presence of a marl bed on a farm, unemployed, doubles the value of the property upon which it is situated. This is emphatically the case in Talbot and Queen Anne's counties on the Eastern Shore of Maryland, and is true, whether so acknowledged at present or not, in Caroline, Charles, St. Mary's and Calvert counties.

In those counties where no marl occurs a resource of paramount value has been pointed out in the great accumulation of oyster shells, made most probably on and around the sites of ancient Indian settlements. It has been shown in the report of the year 1835, that those might be made to afford an almost inexhaustible supply of lime, and thus a material hitherto considered worthless, and in some places an incumbrance, is shewn to possess considerable value. The experiments that have been made by some intelligent farmers

at the suggestion of the Geologist, have been crowned with the greatest success, and have established all that was predicted of the importance to the agricultural interest of the tide water districts of the state, of these extensive deposits. They have also been the means of creating a new industry in many places where they occur; being now extensively burned into lime in some portions of Kent county, and elsewhere, whence it is largely distributed through the surrounding country. The sum of value in this way imparted to a product of Maryland hitherto almost totally disregarded, and of which there are millions of bushels, independent of the use of the lime obtained from it, and considered only as an article of merchandise, it is obvious, would repay all the expenses of the survey so far incurred ten times over.

The discovery of deposits of green-sand, or "Jersey marl" on both the Eastern and Western Shores of the state, has been another fruit of the geological surveys. The occurrence of this mineral in Kent, Cecil, A. Arundel, Calvert, Prince George's and Charles counties, must be looked upon as an invaluable resource. In reference to it, one of the Geologists engaged in the survey of the state of New York, says: "The most valuable of these marls is a green sandy mineral, composed of silver, iron, and potash, which acts as a powerful manure; and it is hoped that this stratum will yet be found on Long Island; and if so, it would be more valuable than mines of gold."

Besides these investigations and discoveries that address themselves to the agricultural interest of the state, the geologist has had the good fortune to discover deposits of iron ore and clays not previously known, the contents of which can be made extensively available to the manufacturing industry of the country.

Such are some of the positive services that have been rendered by the survey; others of a negative character may be mentioned. Thus the mineral resources of many parts of the state have not yet been fully developed, and the people are anxious to commence their researches on the slightest indications, and many have been duped, in consequence of the interested motives of individuals. Companies have been formed and excavations made, in localities where a practical geologist would have said at a glance, there was no probability that the substance sought for could be found. Certain mineral substances occur, so constantly associated with other particular minerals, that on finding one, the others may be expected to occur associated with it.

Without a knowledge of those associations, and various other facts connected with geology, which require much practical knowledge, attempts at new discoveries, except by mere chance, must be fruitless. The hundreds of excavations in different parts of the country, made under the delusive hope of reaping a rich reward, attest the zeal for mineral exploration, but at the same time the want of that practical and theoretical knowledge, which are necessary for the successful prosecution of mining enterprises. In three or four instances already have operations commenced with these fallacious expectations, been stopped at the suggestion of the geologist, which would inevitably have proved the ruin of their projectors, and that moreover were an injury to the neighborhood, by holding out to them the false promise of resources at

hand, which could be obtained only elsewhere, though still within reach, and were in consequence neglected.

Again, a portion of the tide water districts of the State has been within a few years supplied with a material, sold at a reduced price as lime, and was eagerly bought up, in consequence of its low price. But an analysis of this substance has shown that it contains only one half of the ingredient which alone conferred upon it any value; so that in point of fact the Farmer was paying an advanced price for an article which he could obtain nearer home, much better and cheaper. By thus ascertaining the true value of this article, much disappointment has been saved to the Farmer, and many thousands of dollars prevented from leaving the state.

The geological surveys have extended, so far, only over the tide water districts, and the remaining portions of the State, being those where most of its mineral wealth lies, have, as yet, been but very partially developed. It was the principal object of those who projected the survey—and it seems to have been likewise the intention of the Legislature who ordered it—that it should be the means of developing all the advantages, and the whole riches of the state, for the benefit of every portion of her population. In this spirit, the officer charged with the undertaking has sought to collect information on every subject connected with the physical geography of the country.—Whilst pursuing his researches according to the true principles of scientific investigation, he has, very properly, not been satisfied with merely stating the result of his labors, but has pointed out the uses that may be made of them, as subservient to the various interests of the people of the State. The reports which he has annually submitted, do not relate solely to an announcement of the progress of the work, but the account is made to embrace considerations of practical utility, immediately or remotely applicable. Viewing the project as a comprehensive scheme of internal improvement, addressing itself to the interests of every county in the State, we are happy to know that he has devoted all his energies to its completion, and we venture to assert, that when the task is accomplished, the advantages accruing from it, in the very nature of the work, will become manifest to every one.—*Baltimore Chronicle.*

[From the N. Y. Evening Star.]

The Cultivation of Sugar Beets in Ohio.

When the maple forests bow to the axe of the woodman, as they must in the tide of emigration flooding the West, Ohio must look to the Beet if she wishes a domestic substitute for sugar, and cannot get return cargoes of the article cheap enough for the produce she ships to Louisiana. A Mr. Pugh, according to the Cincinnati Gazette, has already anticipated this culture on his farm, a few miles north of that city. He has raised this year sugar beets 30 inches in circumference, and weighing 22 pounds, from seed procured in France, and mangel wurzel of nearly the same dimensions, also from French seed. Mr. Pugh thinks it as easy to raise 50 tons of these beets from an acre as 50 bushels of corn. They are capital for cattle and stock hogs, and young sucking calves prefer them to milk when properly pre-

pared with milk. Among the 56 head of his Durham breeds, those that had fed on beets could readily be distinguished by their fat and sleek appearance. The beets are infinitely better when boiled.

The apparatus and fixtures used by Mr. Pugh for boiling, or rather steaming food for 300, and 40 or 50 cows with other stock, cost about \$150, and consumes a quarter of a cord of wood per day.

Among the Durham cattle on the farm of Mr. Pugh was observed some very fine young males, and among them Lebanon, an animal of superior growth and figure.

Mr. P. has not attempted to make sugar from his beets, but if its manufacture is profitable anywhere from this article, it would certainly be so here, for no soil can produce a better growth. Two hands can prepare the ground, plant and cultivate five acres of beets in a season, and the product would doubtless yield many tons of saccharine matter.

AN EXPEDITIOUS MANNER OF PRODUCING TREES AND SHRUBS.

This consists in surrounding a branch or limb of a tree with earth, and keeping it sufficiently moist to receive the roots formed on this part of the branch, and girdling the branch by degrees during one season of its growth between this part and the body of the tree, immediately adjoining the part surrounded by the earth.

Suppose a cubical box of three inches square, composed of thin boards nailed together, and a horizontal branch passed through holes in the middle of two opposite sides, and the remainder of the box filled with vegetable mould, (say decayed leaves from the woods,) passed into it by an opening in the upper side. If the rain that falls upon the upper side of the box be insufficient to keep the earth within it sufficiently moist, more water may be added (by hand when required;) or a thin board with the edges higher than the middle, may be placed on the box to extend beyond the edges, so as to collect a sufficient quantity of rain water. A small part of the bark is cut through, and in the course of a few days another small portion, and thus continued during the season, until the branch is completely surrounded, and a small ring or circle of bark removed. At a suitable time for transplanting, the branch may be cut entirely off, and treated afterwards as young trees usually are when transplanted; the sides of the box surrounding the earth and roots are removed previously to transplanting. Dry gourds, with holes formed in them while green, answer in the place of boxes.

Peach and other trees, where a *hard strong bark* is desirable, may be produced in this manner to advantage; also *thorns for live fences*, where the value of the plants is in proportion to the number of thorns upon it; another advantage arises from the short space of time required to produce an orchard, or shade trees. The branches that would otherwise require to be cut away to preserve the proper form of the parent tree, might be selected to a considerable extent for this purpose. *Sugar Maple* and many other trees, are now in great demand, with which the above method is certainly worth a trial. P.

HINTS ON DIET.

"An ounce of prevention is better than a pound of cure."

A reasonable indulgence in the abundant supplies of nature, converted by art to the purposes of wholesome food, is one of the comforts added to the maintenance of life. It is an indiscriminate gratification of our tastes, regardless of the consequences that may ensue from it, that is alone blameable. But so great is our general apathy in these respects, that even on the occurrence of diseases, from which we are all more or less sufferers, we scarcely ever reflect on our diet, as the principal, if not the sole cause of them—we assign them to weather, to infection, to hereditary descent, to spontaneous breeding, as if a disease could originate without a cause—or to any frivolous imaginary source without suspecting or being willing to own, mismanagement of ourselves?

We derive the renewal of our blood and juices, which are constantly exhausting, from the substances we take as food. As our food, therefore, is proper or improper, too much or too little, so will our juices be good or bad, overcharged or deficient, and our state of health accordingly good or diseased.

By aliment or food, is to be understood whatever we eat or drink, including seasonings, such as salt, sugar, spices, vinegar, &c. every thing in short, which we receive into our stomachs. Our food therefore, consists not only of such particles as are proper for the nourishment and support of the human body, but likewise contains certain active principles, viz. oils and spirits, which have the properties of stimulating the solids, quickening the circulation and making the fluids thinner; thus rendering them more suited to undergo the necessary secretions of the body.

The art of preserving health and obtaining long life, consists in the use of a moderate quantity of such diet, as shall neither increase the salts and oils so as to produce disease, nor diminish them, so as to suffer the solids to become relaxed.

It is very difficult, almost impossible, to ascertain what are the predominant qualities either in our bodies or in the food we eat. In practice, therefore, we can have no other rule but observing by experience what it is that hurts or does us good, and what it is our stomachs can digest with facility, or the contrary.

The eating too little is hurtful, as well as eating too much. Neither excess, nor any thing else that passes the bounds of nature can be good to man.

By loading the stomach, fermentation is checked, and of course digestion impeded; for the natural juice of the stomach has not room to exert itself, and it therefore nauseates its contents, is troubled with eructations, the spirits are oppressed, obstructions ensue, and fever is the consequence. Besides, that when thus overfilled, the stomach presses on the diaphragm, prevents the proper play of the lungs, and occasions uneasiness in our breathing. Hence arise various ill-symptoms and depraved effects, enervating the strength, decaying the senses, hastening old age, and shortening life. Though these effects are not immediately perceived, yet they are certain effects of intemperance: for it has been generally observed in great eaters, that though from cus-

tom, a state of youth and a strong constitution, they have no present inconvenience, but have digested their food, suffered surfeit, and borne their immoderate diet well, if they have not been unexpectedly cut off, they have found the symptoms of old age come on early in life, attended with pains and innumerable disorders.

If we value our health, we must ever make it a rule not to eat to satiety or fullness, but desist while the stomach feels quite easy. Thus we shall be refreshed, light and cheerful; not dull, heavy or indisposed. Should we be tempted to eat too much at one time, we should eat the less at another. Thus, if our dinner has been larger than usual, let our supper be less, or rather quite omitted; for there is no man, however careful of his health, who does not occasionally transgress in this way.

MANAGEMENT OF HORSES.

FATTENING.

To fatten a horse in a short space of time has generally been considered a very great art, and attended with much difficulty. Some authors are of opinion, it is necessary for a horse to swallow a certain quantity of medicine to produce the desired effect; while others rely on an uncommon or peculiar kind of food; but experience has proved that both opinions are erroneous, and that the few simples which I shall here recommend, together with good rubbing and a particular manner of feeding, will accomplish the fattening of a horse that is not a garron or extremely poor, within three or four weeks. After your stable is prepared, (as directed in page 47,) provide a plenty of good sweet corn, hominy, oats, bran and fodder; also a sufficient quantity of straw to keep him with a comfortable and clean bed; then notice the condition of the animal, for the purpose of bleeding in the neck. Should he be very poor, take from him only one quart of blood; if in tolerable plight two quarts—repeating the bleeding at the expiration of every eight or ten days, until he is fat. Take of flaxseed one pint, boil it to a strong tea of one quart; take of powdered brimstone, one table spoonful; salt-petre, one tea spoonful; of bran one and an half gallons; mix them all together, scalding the bran with the tea, forming a mash; which may be given every eight days: not permitting the horse to drink cold water for eight or ten hours afterwards. Take of assafoetida (which can be procured from any apothecary's shop) half an ounce; wrap it in a clean linen rag, and nail it in the bottom of the manger where the animal is fed; at first the horse will eat unwillingly where it is placed, but in a few days he will grow remarkably fond of it.

When you commence kind treatment towards a horse that has been cruelly used, let it be with great caution, or you may produce a founder or some other injury; those serviceable animals being too often hard used and half starved. For three or four days, allowance a horse (you contemplate fattening) to two and an half gallons a day, six or eight bundles of fodder, or an equal quantity of hay; after which you may keep your rack constantly full of long food, and never permit the manger to be entirely empty; taking care to change the food every day, giving the largest proportion of bran, viz:—bran and hominy, bran and oats, bran and corn, bran alone, oats, corn,

hominy, &c. &c. The food moistened occasionally with strong sassafras tea, produces an admirable effect; it whets the appetite, enriches the blood, and opens the bowels. Whenever a horse is fed, all dust, sour food, &c. should be removed from his manger, which should be washed twice a week with vinegar and salt; this kind of attention will aid the appetite and keep the manger sweet and clean. If the season of the year you undertake to fatten in affords green food of any kind, a little, about twelve o'clock, would assist you much in accomplishing your object. In the bucket in which you water, throw a handful of salt, two or three times a week; it becomes very grateful to the taste, after a few days confinement, and will prevent his pawing and eating dirt. If the object is to fatten a horse as speedily as possible, giving to him unusual life and spirits, he should not be brought out of the stable, nor even led to water. But if flesh is to be placed upon a horse to render hard service, I would recommend moderate exercise once every three days, carefully avoiding fretting or alarming him; more injury may be done a horse by fretting him one day, than you can remove in a week by the kindest treatment. The hoofs should be cleaned out every morning and evening, stuffed with clay and salt, or fresh cow manure, to keep the feet cool and prevent a swelling in the legs. A plenty of good rubbing is absolutely necessary for the placing of flesh speedily on a horse; and a blanket as a covering, at any time except the summer months, will place on his coat of hair a beautiful gloss, and add much to his comfort and apparent value.—*Pocket Farrier.*

[From the Village Record.]

ON THE CULTIVATION OF SILK.

BY DR. JOHT T. SHARPLESS, OF PHILADELPHIA.

Mr. E. C. Genet of Albany, in a letter to me on the subject, considers the drill from the seed or cutting decidedly the best. They must be kept under constant irrigation, and if light, black, sandy mould, called *heath soil*, could be procured for a manure, the production of the best leaves would be almost inevitable. The slips should be about a foot and a half in length, and put down late in the fall after the ground has been deeply dug and manured.

The tree is sometimes allowed to grow to its full size of 15 or 20 feet. Most of the worms ever raised near this city, depended on such, for nourishment, and they appeared to thrive well. No doubt therefore can exist as to the quality of the food; but the object to be attained is to procure the largest quantity possible, from a given portion of ground. To institute, therefore, a comparison, is the best method to decide on each system. Mr. Genet says, "one twentieth of an acre, planted with bushes not more than three years old, will supply 100,000 worms, and will produce 30 pounds of silk; and if a whole acre be so planted, the product will be 600 pounds, equal to 2,000,000 of animals. Forty thousand worms will consume 1000 pounds of leaves, easily supplied by fifty grown, or two hundred small trees, of 2 or 3 years old, and will produce 12 pounds of drawn silk." Mr. Genet continues, "from my experience, mulberry trees, trimmed down every year near to the ground, will yield more than if

placed in order to grow to their full size. The most correct calculation is, that 50 trees of 25 or 30 years old will support 40,000 worms, and will yield but 8 or 10 pounds of silk; whilst 100 trees which occupy one acre of ground can produce but 20 pounds." Mr. Fitch says, "one acre of full grown trees, set a rod and a half apart, will produce 40 pounds of spun silk." The necessity of engrafting also becomes an interesting question. Count Dondola considers the wild or ungrafted tree as bearing the most nutritious food, but he has not tested the matter completely, as almost all the trees in his country are engrafted; the artificial branches are also much shorter lived than the natural.

The same writer says, the older a *natural* tree becomes, the more it improves—the leaves being smaller, and the worms eating it with more avidity. He proceeds, "a wild tree that will yield 50 lbs. of leaves, will afford a larger quantity of better silk, than a grafted tree that will bear 50 lbs. Fourteen and a half pounds of *wild* leaves, weighed when just gathered, without assorting, will produce a pound and a half of cocoons, whilst twenty pounds and a quarter of *engrafted* is required. Seven and a half pounds of cocoons, fed on the wild tree, will give 14 ounces avoirdupois of exceedingly fine silk, and the same quantity from the cultivated tree will give but 11 ounces. He does not speak particularly of trimming the bushes down in the shrubbery system, but it is presumable he means so by mentioning trees that afford but 30 pounds of leaves, and also remarks, that "21,000 lbs. of leaves, which will nett 1500 pounds of cocoons can be given by 732 trees, which can be raised on 2928 square feet of land, allowing four square feet for each."

From all that has been said, it would appear, that the bushes planted in rows, and kept to the height of 5 or 6 feet, grafted or ungrafted, are the best calculated to yield the largest quantity of the best silk.*

For further information on the mulberry, see *La Maison Rustique*; *Technical Repository*; *Millar's Gardner's Dictionary*; *Horticultural Transactions*; *Loudon's Gardening*; *Manuel du Jardinier*, &c. &c.

To proceed with the *manufacture* of silk, after the thread has been reeled and dried, it is *throw-sted* or *twisted*—The object of this operation is, to more completely unite the different fibres of

* The *Silk Manual*, by Edward P. Roberts, published 1835, and for sale by Mr. Judah Dobson, Philadelphia, (a work I would refer all particular enquirers to, as containing *in extenso*, all the information necessary for even large growers) says on the authority of the Hamilton co. (Ohio) agricultural society, that 4 young ladies in Massachusetts, in 1833, fed enough worms from the product of 1 acre, to yield 429 lbs. of silk, besides attending to their domestic duties. Also, that Mr. Parmentier of New York, raised \$490 worth of silk from one acre of trees when full grown. There is also in the same work the estimates of 16 persons whose products from an acre vary from 18 lbs. to 1296 lbs. of silk, the difference depending upon the mode of cultivation, but the total of whose calculations give an average of \$1005 for each acre of land.

which it is composed; being flat, or nearly so, on the reel.

Many very complicated machines have been invented for this purpose; but as it is impossible in a mere essay to go into a detail of every manipulation on this or any other section of the subject, I shall confine myself to an outline. It is first wound from the skein on two bobbins or spools; then by an arrangement somewhat similar to the spool of a spinning wheel with a flyer, which is rapidly turned by machinery, it is again unwound into a skein receiving a twist to the right or left hand, and of greater or lesser tightness according to the fabric intended. It is sometimes left with this twist alone, to be manufactured; two threads thus twisted are placed together and turned in the contrary direction, producing a thread like a rope. This double or even treble thread is principally used as the warp of stuffs; whilst stocking silk is only yarn.

It is now boiled in soft water, with a quantity of fine soap, say 20 or 30 pounds, according to the lightness of the color intended for the dye, to the one hundred pounds of silk. The Gum is thus dissolved; the fibres are almost incorporated with each other; the thread becomes much larger, softer, and more pliable, whilst it loses nearly one fourth of its weight. The silk is then *beetled*, or washed and beaten, to remove all the soap, as that substance, however small the quantity, prevents the effect of the dyeing material. If the silk is to remain *White*, this operation is repeated three times, but with a less quantity of soap. It is then exposed to the fumes of sulphur, and subjected to other processes according to the purity of the color intended. As the use of the soap has in some instances injured the lustre of the thread, it has been proposed to use a weak solution of an alkali, as soda, but it does not dissolve the gum, which is necessary to enable the dye to take effect.

Some kinds of silk are dyed in the thread, and others in the stuff, but the same principle holds good both in the practice and in the theory. The most rational explanation of the application of dyes, is, that an actual chemical connexion takes place between the coloring matter and the fibre, by the intervention of a third substance, called a *mordant*. These are salts of various kinds, which are different according to the color.

The most common mordant is Alum, which is made into a strong solution, and the silk, when to be *alumed*, is dipped in it cold. Salts of tin are sometimes used.

As it would be useless to enter minutely into the manipulation of dyeing in this essay, I will merely give a general idea of the substances employed, and refer the more particular inquirer to Cooper on Dyeing; Macquer's *Art de la Teinture en Soie*; Berthollet's *Elements, de l'art de la Teinture*; Bancroft on colors; Bergman on the art of Dyeing, &c.

To produce the variety of red tints, Cochineal, Brazil wood, Madder, &c. are employed, but the first is most generally used, as giving the finest and most durable color. The different shades are produced by adding Galls, Copperas, &c. to the dyeing mixtures.

For *Blue*, Indigo is preferred, though Logwood and Prussian Blue are used. With Indigo no mordant is required, the *Blue Vat*, which is a mix-

ture of Indigo, Potash, Madder, Bran, &c. being sufficient.

For *Purple* or *Violet*, a red is added to the blue ground.

For *Green*, a yellow is added to the blue ground, or substances to produce both tints are used together, as Weld, Logwood, and for *Yellow* alone, Weld, Turmeric, Fustic, &c.

For *Black*, alum is never employed. The principle consists in adding a quantity of Galls or Sumac, to solutions of Iron and its compounds, as Copperas, which act on each other as in the production of ink. A black may be produced by boiling the silk in a decoction of walnut rinds, the passing it through a strong dye of Dogwood; and lastly, if a good black be desired, it is dipped into a mixture of Gall, Copperas, and Gum Arabic. The Gum is afterwards washed out, and the air perfects the color.

I before mentioned that boiling diminished the weight of silk by depriving it of its gum, but dyeing increased its weight in a great degree, in black, particularly when the galls are used, from four to six ounces are added to the pound of silk.

Sometimes it is required to discharge colors and introduce new ones. The principle consists in removing the mordant and the color will naturally escape. If this has been an alkali, as tartar or alum, a weak solution of an acid, as oil of vitriol will neutralize it, but if a solution of tin has been used, an alkali is required. It may then be bleached. If, however, the color cannot be removed, it may be changed into a darker or mixed tint, of which the original color is a constituent.

The silk is now prepared for the loom, which process is varied to suit the article. It is first warped, or the chain is laid parallel, and equally tight, and then placed in the loom, after which the mechanical operation is like that in cotton or wool. One thing is necessary to be known, that the dressing commonly given to the other substances always injures silk. After weaving, the pressing and other preparations must vary according to the fabric.

[From the Yankee Farmer.]

SHEARING SHEEP.

MR. COLE.—I send you the following as the result of ten years experience. I have usually sheared my lambs between the middle of July and the middle of August, but think the period between the 25th of July and the 5th of August preferable. The quantity of wool has varied from one to three pounds, the average for lambs being about two pounds each. The wool, a fine article in the manufacture of hats, has usually been worth from 23 to 50 cents. The advantages of shearing lambs are, it destroys the ticks, relieves the lambs of an uncomfortable fleece, and thus promotes their health and growth during the warmest part of the season. The quantity and quality of the wool are not diminished at the time of shearing in the following spring, and ever after the quantity is augmented and quality improved. I have not unfrequently taken four pounds each from Saxony yearlings, which had been shorn of a valuable fleece the latter part of the preceding July. As to disadvantages I know of none. The lambs winter well, are in better order, and the

flock more likely to be increased the ensuing spring.

JOHN MOULTON.

Potter, July 28, 1887.

Wheat Fly driven by smoke.—Mr. Jeremiah Stinchfield of Danville informs us that he found the wheat fly very numerous on his wheat a little before sunset; the next day about noon he set fire to brush that was piled up by the side of the wheat, and the wind wafted the smoke in abundance all through the wheat. He afterwards examined the wheat frequently, and did not find any of the flies. He thinks that the smoke must have been the cause of their sudden disappearance. They had already deposited eggs, and the worm have injured his wheat considerably. Perhaps he did not smoke them early enough to save all.—*Yankee Farm*.

Remarkable Apple Tree.—We are informed that there is an apple tree on the farm of Mr. Elihu Smeal, of Charlemon, which blossomed at the usual time in the Spring, and the fruit from those blossoms is ripe; in July it blossomed again, and the blows remained on the tree about three weeks; there are apples from the second crop of blows, about the size of bullets, and the tree has now, (about Sept. 1,) blossomed a third time. The uncommon spectacle of ripe apples, young green apples, and blossoms may be seen on the same limb. We have no knowledge of a case of this kind so remarkable as this.—*Northamp. (Mass.) Gaz.*

Buckwheat.—A few days ago we saw some of the finest specimens of this species of grain that we have ever seen, known in this vicinity by the name of "Indian Buckwheat." It was raised on the farm of Mr. Alpheus Brown, of this town, from the branches of three stalks—which had been exhibited in the village, and handled over by several persons and more or less lost—a pint measure was filled with the remaining kernels.

Chenango Rep.

[From the Ohio Farmer.]

INTERESTING EXPERIMENT IN SILK RAISING.

The following communication throws new light on several subjects connected with the raising of silk, and the improvements yet to be made in the variety of the worm. Mr. Chew bids fair to be, not only one of the most successful, but the most useful persons engaged in this business.—We have spoken of his nursery of *Multicaulis* heretofore; and his cocoons which we have examined are superior to any of the kind we have ever seen. We hope to see in a year or so, an extensive business carried on under his direction and ownership. His communication spoken of we hope will not be neglected.

MR. EDITOR:—At your request I give the history of my success in feeding a second crop of Silk worms this season, and a few observations accompanying it. The crop is small, and was brought out by way of experiment in *crossing* varieties of the insect; and with a view to an exact observation of its habits. The varieties used were female millers of the "two crop white worm," from cocoons wound early in July; and male

millers of the ordinary six weeks variety, which were also from cocoons wound early in July, being of a sulphur color. My success with my first crop of both these varieties was discouraging; the worms of the "two crop" kind were sickly, and their cocoons were so small and thin, that like success a second time would have induced me to discard them from my cocoonery.

The second crop was attended by myself; they were cleaned daily, and were fed as often as eight or ten times a day, *exclusively* on the leaf of the *multicaulis*—they were kept in a comfortable well aired room, but no artificial heat was used to regulate the temperature. I observed that the eggs after being deposited did not change color as is usual, but that they remained the same as when laid, until they hatched, which was on the 20th of July, at 9 o'clock, A. M. The thermometer ranged 82° Fahrenheit, and had ranged the two preceding weeks from 75° to 85°. They first moulted within 60 hours after they were hatched, as appeared on careful examination by finding skins among the litter, although no signs of inactivity were observable until the second moulting—this moulting commenced on the afternoon of the 1st of August, about eighty hours after they were hatched. They were inactive this time 48 hours and then resumed eating with good appetites. The third moulting commenced on the 5th of August about 9 o'clock, A. M. and continued about 30 hours; the weather being quite cool—Aug. 5th and 9th were very cool, damp and rainy. The fourth moulting of about one half the lot, commenced on the 9th and continued about 12 hours, the other half moulted on the night of the 10th, and morning of the 11th. On the 13th and 14th the whole moulted for the fifth time. On the 17th a few commenced winding cocoons, it being the 19th day since they were hatched, others moulted daily, and the last moulted on the 20th, being 22 days since they were hatched. Before winding they measured in length as they laid $3\frac{1}{4}$ inches; I lost from disease, casually, 10 per cent. of the lot hatched.

The cocoons were of usual size, being larger than the cocoons of the *mammoth* variety, made from eggs which I have procured from Doct. Stebbins of Northampton. Several when stripped of their floss measured in circumference lengthways $5\frac{1}{2}$ inches, and breadthways $3\frac{1}{2}$ inches. Their average weight was 35 grains or 164 20-35 to the pound Apothecaries weight; and assorted cocoons, being all single, weighed 53 grains, 108 36-56 to the pound—*Chrysalis* not stifled; they were of very light sulphur color.

The cocoons were formed in small paper cones, and remained in them one week before they were disturbed; they were then stripped of their floss, and put in a room quite dark. The moths made their appearance in from 14 to 20 days after winding, and each female produced an average of 613 eggs—65 producing 40,000; I continued several depositories which numbered over 600 respectively.

This experiment has confirmed some and removed other of my former impressions. I observed, first, that different varieties may be crossed with good results.

2nd. That two crops of silk may be made in a season, and probably three in a more southern latitude.

3d. That the "two crop" variety moult five times and not three as has been stated.

4th. That the color of the cocoon is caused by fixed laws, and is not accidental.

5th. That worms hatched on the same day, are liable to moult at different times, the care and attention of all being equal; and that the advice frequently given, to throw away all except those which hatch upon any one day should not be followed, because perfect uniformity of hatching and winding cannot be attained.

6th. That in this latitude we are never liable to have weather too warm for worms when placed in the shade. The thermometer at one time being at 90° Far. while these worms were feeding, and they were then most active, lively and vigorous.

7th. That the more care and attention you give the worms the better will be the crop; that if fed with profusion worms will never eat too much; and that they should always have fresh food by them. These last observations appear to have been formed in *economy*. The same lot of worms well fed and attended, I think, will spin sooner, and produce a far better crop in three or four weeks, than it would in five or six weeks with twice the quantity of food if indifferently fed and attended; so that with proper attention there is a saving of food and labor; there is less risk of disease and casualties, not to mention the gain of fine and rational enjoyment which every *cultivator* should feel in making a superior crop.

I fear I have already wearied you with the length of my communication; although I have not yet mentioned the half of my observations. I cannot close however, without bearing my testimony to the value of the *multicaulis* as a superior article of food. At another time, I will, if agreeable to you, resume the subject, dealing more in generals than in this communication.

A. S. CHEW.

Columbus, Oct. 1837.

NOTE.—*If the "two crop" variety is used. I have made two unsuccessful attempts to bring out a second crop with the common varieties; viz: during the summers of 1836 and 37—the eggs were exposed to several degrees of heat, in one case as high as 100° Far. ineffectually.

C.

THE ROCKVILLE ACADEMY.

The Classical department of this institution under the care of the Rev. John Mines, is now open under the supervision of Mr. JOHN NEELY, a gentleman of high scholastic attainments, unexceptionable character and considerable experience in the instruction of youth.

The Trustees congratulate the patrons of the Academy, and the public, that the vacancy occasioned by the retirement of their late learned and venerated principal, has been so fortunately supplied.

The English departments of this school are under the control of two highly qualified and efficient instructors, Messrs. JOSEPH BRADDOCK and A. McLEAN SCOTT.

Few Academies in the Country present as many claims to public patronage as this. The number, ability and experience of its Teachers, the variety and extent of their instructions, the health of the country which surrounds it, and the morals of the community in which it is situated, combined with the unusually moderate terms of tuition, concur to recommend it to parents and guardians.

Course of instruction in the Classical Department.

Latin and Greek Language—French if requested—the higher branches of Mathematics—Natural and Moral Philosophy—Geography, with use of maps and globes, &c.

English Department—Reading, Writing, Arithmetic, Grammar, Geography and Mathematics.

Terms of Tuition—In the Classical department, \$20 per annum. In the English departments, \$8 to 16 per annum.

Board, including washing, may be had in respectable private families for \$100.

By order of the Board,
JOSEPH H. JONES, President.

RICHARD J. BOWEN, Sec'y.
Rockville, Montgomery county, Md. Oct. 20, 1837.

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators
Superior Grain Cradles
Weldron Grain and Grass

Scythes
Farwell's Patent Double
Back Grass Scythes and

Snathes
Hay Forks and Rakes
Manure Forks, Shovels, &c.

English Corn Hoes
Superior American made
Castee Hoes, with handles

Wheat FANS, of various
sizes
Mattocks, Picks and Grub-

bing Hoes
Corn Shellers

Threshing Machines, with
or without horse power
F. H. Smith's Patent Lime
Spreader

A great variety of Ploughs
of all sizes, with wrought
and cast iron Shares

Swingle Trees and Hames
Also, a great variety of
Plough Castings, constantly
on hand for sale by the piece or ton. All
kinds of Machine Castings
made to order; repairs on
Ploughs and Machinery
done at short notice

Liberal discount made to
those who purchase to
sell again.

All kinds of Grass SEEDS and Seed Grain bought and
sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of
Mr. D. Landreth's superior GARDEN SEEDS, raised
by himself, and warranted genuine. All communications
by mail, post paid, will receive prompt attention.

By 4

J. S. EASTMAN.

BAKFWELL RAMS.

For sale 6 Bakewell Rams, one of which was imported. The prices are as follows, viz: the IMPORTED Ram \$150; No. 1. of the native bred, \$100—No. 2, \$75; No. 3, \$50; Nos. 4 and 5, 35 dollars each. The five latter rams are one year old, in fine condition, and beautiful specimens of their peculiar and much admired long-wooled breed. As a proof of their superior quality it may be well to state that two brothers of the latter five were sold at the great Whitaker sale recently held in Philadelphia, for \$100 each, and a third one since for the same money at private sale. Applications to be addressed in writing to

JOHN BARNEY,
Philadelphia.
31.

Oct. 10.

CONTENTS OF THIS NUMBER.

Economy in feeding stock—mammoth oxen—on the culture of mangel wurtsel—methods of reviving worn out lands—geological survey of Maryland—cultivation of sugar beets in Ohio—expedient manner of producing trees and shrubs—hints on diet—on fattening horses—on the cultivation of silk—on shearing sheep—wheat fly driven by smoke—remarkable apple tree—Indian buckwheat—interesting experiment in raising silk—advertisements—prices current.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	6 00	7 00
CORN, yellow.....	bushel	100	106
" white,.....	"	100	102
COTTON, Virginia,.....	pound	11	
North Carolina,.....	"		
Upland,.....	"	10	12
Louisiana — Alabama	"		
FEATHERS,.....	pound.	50	
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 50	11 50
Do. do. baker's.....	"	9 50	
SuperHow. st. from stores	"	8 50	
" wagon price,.....	"	9 00	9 25
City Mills, super.....	"	9 50	9 62
extra.....	"		
Susquehanna,.....	"		
Rye,.....	"		
Kiln-dried Meal, in hhd.	hhd.	24 50	25 00
do. in bbls.	bbl.	5 25	5 50
GRASS SEEDS, wholes. red Clover,	bushel.	7 50	8 00
Kentucky blue.....	"	2 50	3 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"		3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 00	
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LINE,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	37	38
PEAS, red eye,.....	bushel.		
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.		3 50
Ground,.....	barrel.	1 62	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	100	105
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100lbs	2 50	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
" for cigars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconda, as in quality, ..	"		
" ground leaf, ..	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.		
Red, best.....	"	2 00	2 05
Maryland inferior.....	"	1 80	1 20
WHISKY, 1st pf. in bbls.....	gallon.	39	40
" in hhd.,.....	"		37
" wagon price,.....	"		30
WAGON FREIGHTS, to Pittsburgh, ..	100lbs	1 50	
To Wheeling,.....	"	1 75	
WOOL, Prime & Saxon Fleeces, ..	pound.	40 to 50	20 22
Full Merino,.....	"	35	40 18 20
Three fourths Merino,.....	"	30	35 18 20
One half do.....	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,.....	"	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER	FROM	TO
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	13	13 1/2
Shoulders,..... do.....	"	10 1/2	10 1/2
Middlings,..... do.....	"	do	do
Assorted, country,.....	"	9	9 1/2
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
COWS, new milch,.....	"	25 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	2 06	2 12
CHOP RYE,.....	"		1 75
EGGS,.....	dozen.	18	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	2 75	2 87
Mackerel, No. 1, ——— No. 2	"	9 00	10 00
No. 3,.....	"	4 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	PER	FROM	TO
U. S. Bank,.....	par		
Branch at Baltimore,.....	do		
Other Branches,.....	do		
MARYLAND.			
Banks in Baltimore,.....	par		
Hagerstown,.....	do		
Frederick,.....	do		
Westminster,.....	do		
Farmers' Bank of Maryland, do	do		
Do. payable at Easton,.....	1		
Salisbury,.....	2 per ct. dis.		
Cumberland,.....	3		
Millington,.....	do		
DISTRICT.			
Washington,.....	do		
Georgetown,.....	do		
Alexandria,.....	do		
PENNSYLVANIA.			
Philadelphia,.....	do		
Chambersburg,.....	1		
Gettysburg,.....	do		
Pittsburg,.....	3 1/2		
York,.....	1		
Other Pennsylvania Bks.	4		
Delaware (under \$5).....	6		
Do. (over \$5).....	2		
Michigan Banks,.....	10		
Canadian do.....	10		
VIRGINIA.			
Farmers Bank of Virgi.	1 1/2		
Bank of Virginia,.....	do		
Branch at Fredericksburg do	do		
Petersburg,.....	1 1/2		
Norfolk,.....	1 1/2		
Winchester,.....	1 1/2		
Lynchburg,.....	1 1/2		
Danville,.....	10		
Bank of the Valley,.....	1		
Branch at Romney,.....	do		
Do. Charlestown,.....	do		
Do. Leesburg,.....	1 1/2		
Wheeling Banks,.....	3 1/2		
Ohio Banks, generally.....	6 1/2		
New Jersey Banks gen.	5		
New York City,.....	4		
New York State,.....	3 1/2		
Massachusetts,.....	3 1/2		
Connecticut,.....	3 1/2		
New Hampshire,.....	3 1/2		
Maine,.....	3 1/2		
Rhode Island,.....	3 1/2		
North Carolina,.....	5		
South Carolina,.....	8 1/2		
Georgia,.....	do		
New Orleans,.....	12		

A HALF DURHAM BULL CALF—FOR SALE.

The subscriber has a beautiful red and white bull calf, HALF DURHAM, being got by a full bred Durham bull, which he sold last December for \$300, and out of a very large Cow owned by him. The cow when he bought her was represented as half Durham, but as she has no pedigree he designates her offspring as half Durham. His sire was a noble animal, out of an imported cow, and got in England by one of the Colling's bulls. To any gentleman who may desire an improving cross, and who may be averse to give the higher price of the full bred Durhams, this calf offers an excellent opportunity, as he has all the fine points of the latter, and would be taken by an incompetent judge for a full bred. His price is \$30—his age 5 weeks old.

EDWD. P. ROBERTS,
Baltimore, Md.

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bred another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
EDWD. P. ROBERTS, Baltimore, Md.

KENTUCKY BLUE GRASS SEED.

Just received from the South West a lot of Kentucky Blue Grass Seed. This grass is particularly desirable for pastures and for hay, and forming fine green or rather blue lawns, &c.

R. SINCLAIR, Jr. & Co.,
Light, near Pratt-street, Balt.

Sept. 10.

ROBERT SINCLAIR'S NURSERY,
AT CLAREMONT, NEAR BALTIMORE.

This Establishment now comprises between 20 and 30 acres, loosely planted with a most

CHOICE COLLECTION, from ours and foreign countries of the FINEST VARIETIES known—Of Pear, Plum, Cherry, Peach, Apple, Quince, Apricot, Nectarine, Grape Vines, Currant, Eng-

lish Gooseberry, Raspberry, Strawberry, English Walnut, Ornamental Trees, including Evergreens, Shrubs and Roses, all very thrifty and of larger size than any former year, especially the Peach, Apple, and Trees suitable for planting in streets.

Also, about half an acre of double Dahlias, now in full bloom, of almost every color and shade. Amateurs are invited to make their selections.

20,000 Morus Multicaulis Mulberry Trees, with large roots, 2 to 7 feet high, at liberal prices, varying according to size.

60,000 Cuttings of do. well ripened wood.

20,000 white Italian Mulberry Trees, 2 years old.

For further information please address the proprietor, near Baltimore. Trees and Plants ordered from him are carefully selected and faithfully packed, and forwarded by land or sea, as directed, and conveyed to the city without charge. Printed and priced catalogues will be sent on application gratis.

R. Sinclair, Jr. & Co., Seedsmen, in Light st., act as agents, where necessary.
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ROBERT SINCLAIR, senr.

CLIME'S COMBINED PLOUGH.

The subscriber having purchased the right for Maryland, and with the exception of Harford and Cecil counties, to sell patent rights for, and make and vend, the above ploughs, takes pleasure in informing the agricultural public and mechanics, generally, that he is prepared either to sell patent rights for counties or districts, in Maryland, (those counties excepted) or to supply all orders for said ploughs from adjoining states.

The above plough is eminently calculated for ploughing in small grain, for the cultivation of corn, potatoes, cotton, tobacco, and in fine for all row culture, as well as for turning up stubble in light soils. The public may form an idea of the superiority of this implement for the above purposes, when the undersigned states, that with the same propelling force, it is competent to do as much work a gain, as any other plough now in use. In corn culture owing to its peculiar construction, it not only turns under the grass and weeds, but hills the corn at the same time, thus dispensing with the trouble, labor and expense of hoes. Nor is it less important in its manner of doing its furrow with such accuracy, and so completely covers the superincumbent vegetable substances, as to ensure its speedy and effectual decomposition, thus preventing the re-vegetation of the matter turned under. In places where labor is high, this plough will of course be appreciated, as it effects a saving of 50 per cent., doing double work,—a thing worthy of farmers consideration. In these times.

J. T. DURDING,

at J. T. Durdin & Co's. fronting Grant and Ellicott-sts in the rear of Mr. Adam Kve's Grocery, Pratt-st. wharf

ITALIAN SPRING WHEAT.

The subscribers daily expect to receive about 100 barrels of Italian Spring Wheat, raised near Rome, N. Y. by J. Hathaway, esq. from imported seed.

This wheat was raised by Mr. H. particularly for seed grain, and the greatest care has been taken to prevent mixture from other sorts. The article is perfectly clean, and put up in tight barrels, which hold 3 1/2 bushels each. Those desirous of being supplied with this desirable article will make early application.

The price will be \$5 per bushel, the cash to be paid on delivery of the grain. ROBT. SINCLAIR, Jr. & CO.

Light, near Pratt street, Baltimore.

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